QUICK GUIDE

NVIDIA VANTA
VIDEO CARD

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Mat. No. 111999-AM

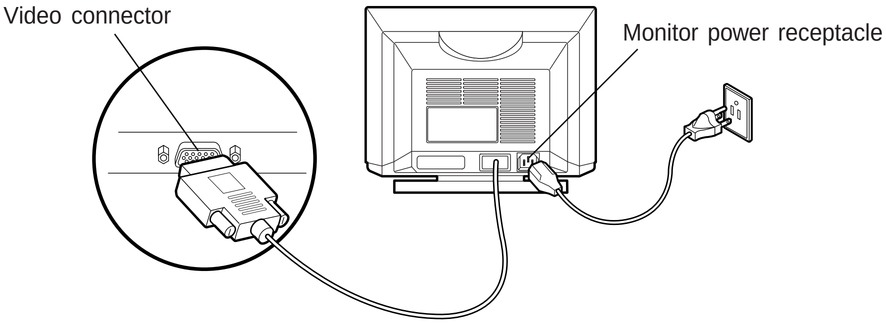
Features

The NVIDIA vanta video card is a high performance multimedia accelerator that delivers 128-bit graphics power from 8MB of high-speed SDRAM with full 2D graphics acceleration and advanced 3D functions.

- AGP 4X/2X interface
- 64-bit frame buffer interface
- 32-bit true color RAMDAC up to 250MHz pixel clock
- Full-screen, full-frame DVD playback
- Video acceleration for DirectShow, MPEG-1, MPEG-2, and Indeo
- Optimized for Katmai New Instructions and 3DNow
- High performance implementation of Direct3D and OpenGL standards
- DDC1/2B/2AB/2Bi/2B+ monitor support

Connecting the Monitor

Connect the monitor cable to the video connector of your video card and if the connector has retaining screws, be sure to tighten them.



Changing the Display Settings

To change the display resolution and color depth, follow these steps:

1. Click the Start button, point to Settings, and click Control Panel.
2. Double-click the Display icon. Or click the right mouse button on the empty desktop area and click Properties.
3. When the Display Properties window appears, click the Settings tab.
4. Select the color depth from the Colors area and the resolution from the Screen area.

   Use the Colors drop-down selection box at the left of the Settings page to select the number of colors (or color-depth) you would like to use.

   Move the Screen area slider control to the right to increase the display resolution you are using or back to the left to decrease the resolution. Be sure to select a display mode that your monitor can support before you continue.
5. Click the OK button.

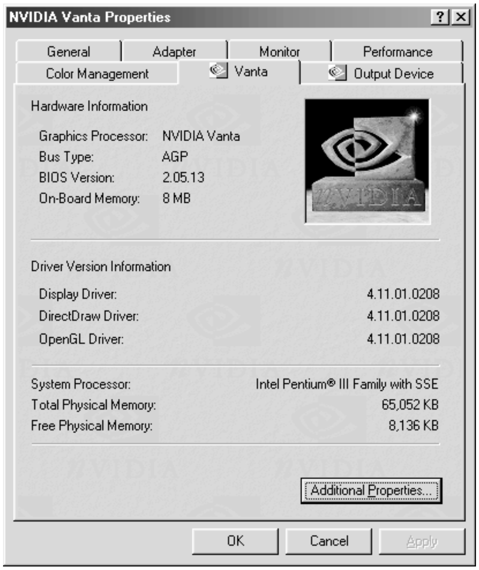
Configuring Your NVIDIA Vanta Options

You can configure the NVIDIA Vanta options. To configure the options, follow these steps:

1. Click the Start button, point to Settings, and click Control Panel.
2. Double-click the Display icon. Or click the right mouse button on the empty desktop area and click Properties.
3. When the Display Properties window appears, click the Settings tab.
4. In the Settings page, click the Advanced button.
5. The NVIDIA Vanta Properties dialog box is opened.
6. Choose the tab you want to configure and control the options.
7. After finishing the configuring, click OK.

Vanta

Displays the video card, driver, and system information.



Hardware Information

Graphics Processor: NVIDIA Vanta
Bus Type: AGP
BIOS Version: 2.05.13
On-Board Memory: 8 MB

Driver Version Information

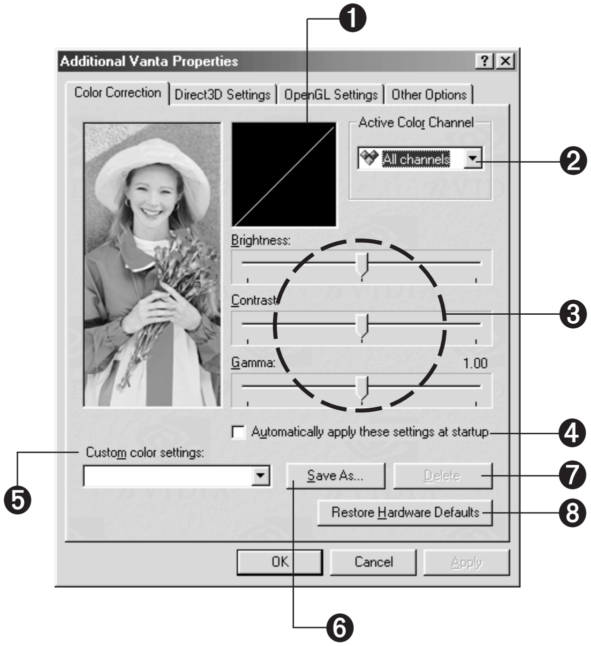
Display Driver: 4.11.01.0208
DirectDraw Driver: 4.11.01.0208
OpenGL Driver: 4.11.01.0208

System Processor: Intel Pentium® III Family with SSE
Total Physical Memory: 65,052 KB
Free Physical Memory: 8,136 KB

Additional Properties...

When you click this button, the Additional Vanta Properties window appears.

Color Correction



Active Color Channel: All channels

Gamma: 1.00

☐ Automatically apply these settings at startup

❶ A graphical representation of the color curve. This curve will change in real time as you adjust the contrast, brightness or gamma.

❷ Allows you to select the color channel controlled by the sliders. You can adjust the red, green or blue channels individually or all three channels at once.

❸ The slider controls allow you to adjust the brightness, contrast or gamma values for the selected color channel.

The color correction controls help you to compensate for variations in luminance between a source image and its output on a display device. This is useful when working with image processing applications to help provide more accurate color reproduction of images (such as photographs) when they are displayed on your monitor.

Also, many 3D-accelerated games may appear too dark to play. Increasing the brightness and/or gamma value equally across all channels will make these games appear brighter, making them more playable.

❹ Selecting this option will automatically restore the color adjustments you have made here when Windows is restarted.

> **NOTE**
>
> *If your computer is running on a network, the color will be adjusted after you have logged on to Windows.*

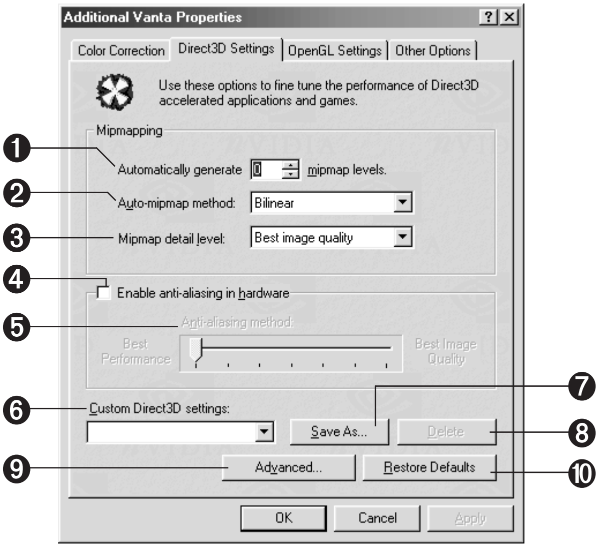
❺ A list of the custom color settings you have saved. Selecting an item from the list will activate the setting.

❻ Lets you save the current color settings as a custom setting. Saved settings will then be added to the adjacent list.

❼ Deletes the custom color setting currently selected in the list.

❽ Restores all color values to the hardware factory settings.

Direct3D Settings



Use these options to fine tune the performance of Direct3D accelerated applications and games.

Automatically generate 0 mipmap levels.

Auto-mipmap method: Bilinear

Mipmap detail level: Best image quality

☐ Enable anti-aliasing in hardware

❶ Your NVidia graphics processor can automatically generate mipmaps to increase the efficiency of texture transfers across the bus and provide higher application performance.

However, some applications may not display correctly when auto-generated mipmaps are enabled. To correct any problems, reduce the number of automatically generated mipmap levels until the images are properly displayed. Reducing the number of mipmap levels can often eliminate texture misalignment or “seaming” (at the expense of some performance).

❷ Allows you to select the auto-mipmapping method used by the graphics processor.

You can select either the bilinear or 8-tap anisotropic mipmapping method, whereby the bilinear method generally provides better performance, while the anisotropic method generally produces a higher quality image.

❸ Allows you to adjust the LOD (Level of Detail) bias for mipmaps.

A lower bias will provide better image quality, while a higher bias will increase application performance. You can choose from five preset bias values, varying from “Best Image Quality” to “Best Performance”.

❹ These options allow you to control the anti-aliasing features of the drivers.

Anti-aliasing is a method used to smooth edges of 3D objects to eliminate a jagged appearance. Note that enabling anti-aliasing will not automatically cause all Direct3D programs to render anti-aliased images. Anti-aliasing must be supported by the application in order for it to work properly.

❺ Allows you to select the anti-aliasing sampling method.

You can adjust the settings to values which range from providing the fastest application performance to rendering the highest quality image.

❻ A list of the custom settings (or “tweaks”) you have saved. Selecting an item from the list will activate the setting. To apply the setting, choose the “OK” or “Apply” button.

❼ Lets you save the current settings (including those set in the “Direct3D - Advanced” dialog) as a custom “tweak”. Saved settings will then be added to the adjacent list.

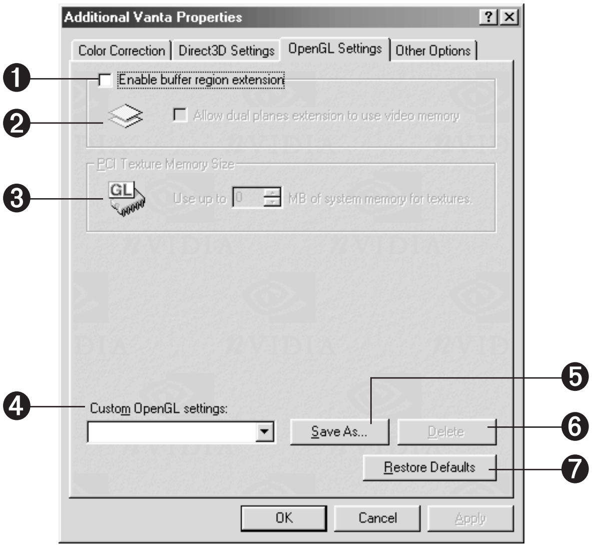
Once you have found the optimal settings for a particular Direct3D game, saving the settings as a custom tweak allows you to quickly configure Direct3D before starting the game and eliminates the need to set each of the options individually.

❽ Deletes the custom setting currently selected in the list.

❾ Displays a dialog which allows you to customize additional Direct3D settings.

❿ Restores all settings to their default values.

OpenGL Settings



❶ Allows the drivers to use the OpenGL extension GL_KTX_buffer_region. This can increase application performance in 3D modeling applications that support this extension.

❷ Allows the use of local video memory when the GL_KTX_buffer_region extension is enabled. However, if there are less than 8 MB of local video memory available, dual planes extension support will not be enabled.

❸ Allows you to specify the maximum size of the PCI texture heap.

Increasing this value on PCI systems with sufficient memory may significantly improve the performance of some OpenGL applications.

> **NOTE**
>
> *The maximum amount of system memory that can be reserved for OpenGL texture storage depends on the amount of physical RAM installed in your computer. The more system RAM, the higher the maximum value.*

This setting also affects AGP display adapters running in PCI compatibility mode.

❹ A list of the custom settings (or “tweaks”) you have saved. Selecting an item from the list will activate the setting. To apply the setting, choose the “OK” or “Apply” button.

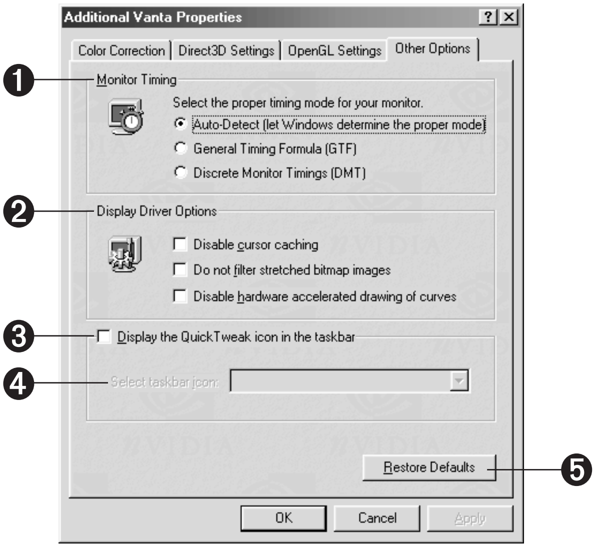
❺ Lets you save the current settings as a custom “tweak”. Saved settings will then be added to the adjacent list.

Once you have found the optimal settings for a particular OpenGL application, saving the settings as a custom tweak allows you to quickly configure OpenGL before starting the program and eliminates the need to set each of the options individually.

❻ Deletes the custom setting currently selected in the list.

❼ Restores all settings to their default values.

Other Options



Monitor Timing

Select the proper timing mode for your monitor.

● Auto-Detect (let Windows determine the proper mode)

○ General Timing Formula (GTF)

○ Discrete Monitor Timings (DMT)

Display Driver Options

☐ Disable cursor caching

☐ Do not filter stretched bitmap images

☐ Disable hardware accelerated drawing of curves

☐ Display the QuickTweak icon in the taskbar

Select taskbar icon:

❶ Allows you to select your monitor timing mode:

Auto-Detect allows Windows to receive the proper timing information directly from the monitor itself. This is the default setting. Note that some older monitors may not support this feature.

General Timing Formula or GTF is a standard used by most newer hardware.

Discrete Monitor Timings or DMT is an older standard still in use on some hardware. Enable this option if your hardware requires DMT.

❷ Select this option to disable the caching of cursors by the drivers.

If the mouse cursor is improperly displayed or becomes corrupted while running certain applications, disabling the cursor cache may correct the problem.

If this setting is changed, Windows must be restarted for the new setting to take effect.

❸ Adds the NVidia QuickTweak icon to the Windows taskbar.

The icon allows you to apply any of the custom Direct3D, OpenGL or color settings “on the fly” from a convenient popup menu. The menu also contains items for restoring default settings and accessing the Display Properties dialog.

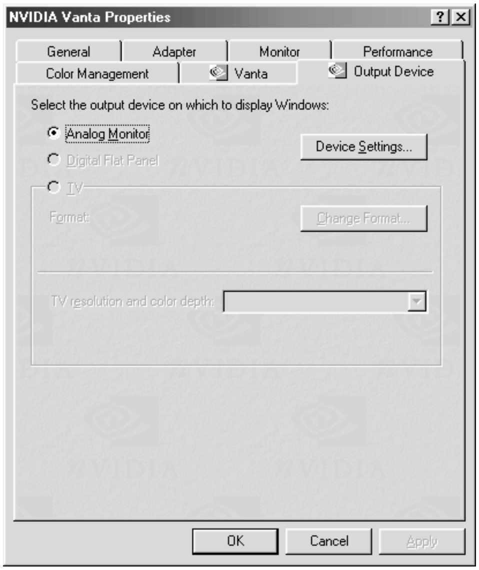
❹ Allows you to choose the icon used to represent the QuickTweak utility in the Windows taskbar.

Select the icon you want displayed from the list. Then choose “OK” or “Apply” to update the icon in the taskbar.

❺ Restore all settings to their default values.

Output Device

These options allow you to select the output display device (monitor, digital flat panel or TV, depending on which devices your display adapter supports).



Select the output device on which to display Windows:

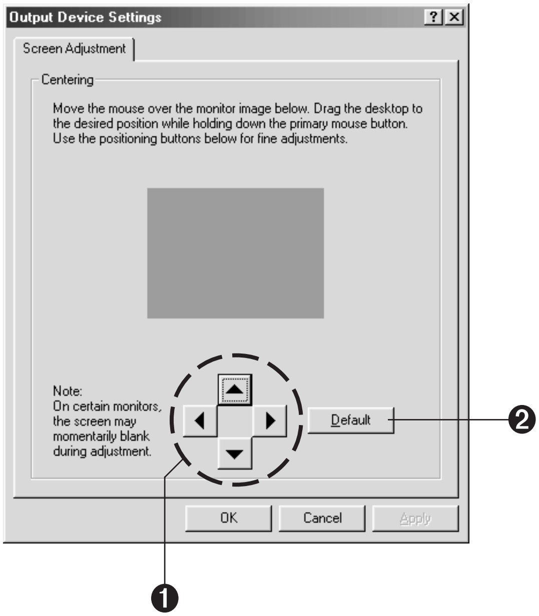
● Analog Monitor

○ Digital Flat Panel

○ TV

Device Settings

Opens a window where you can customize the settings for the active display device.



Move the mouse over the monitor image below. Drag the desktop to the desired position while holding down the primary mouse button. Use the positioning buttons below for fine adjustments.

Note:
On certain monitors, the screen may momentarily blank during adjustment.

❶ Use the arrow buttons to adjust the position of the desktop on your monitor.

❷ Resets the desktop to its default position for the current resolution and refresh rate.

Display Modes

This table lists the display modes supported by your NVIDIA Vanta video card and the vertical refresh rates available for each display mode.

Resolution	Bit Depth	Refresh Rates (Hz)	Max Refresh Rate		
			8bpp	16bpp	32bpp
320x200	8,16,32	70,72,75,85,100,120	120	120	120
320x240	8,16,32	60,70,72,75,85,100,120	120	120	120
400x300	8,16,32	60,70,72,75,85,100,120	120	120	120
480x360	8,16,32	60,70,72,75,85,100,120	120	120	120
512x384	8,16,32	60,70,72,75,85,100,120	120	120	120
640x400	8,16,32	70,72,75,85,100,120	120	120	120
640x480	8,16,32	60,70,72,75,85,100,120,140,144,150,200,240	240	240	240
800x600	8,16,32	60,70,72,75,85,100,120,140,144,150,200,240	240	240	240
960x720	8,16,32	60,70,72,75,85,100,120	120	120	120
1024x768	8,16,32	60,70,72,75,85,100,120,140,144,150	170	170	170
1152x864	8,16,32	60,70,72,75,85,100,120,140,144,150	150	150	140
1280x1024	8,16,32	60,70,72,75,85,100,120	120	120	100
1600x1200	8,16	60,70,72,75,85	85	85	-
1920x1080	8,16	60,70,72,75	75	75	-
1920x1200	8,16	60,70,72,75	75	75	-

NOTE

All of the display modes shown are not necessarily supported by all monitors or software. Be sure to check the capabilities of your monitor and the requirements of your software before choosing a display mode or refresh rate.